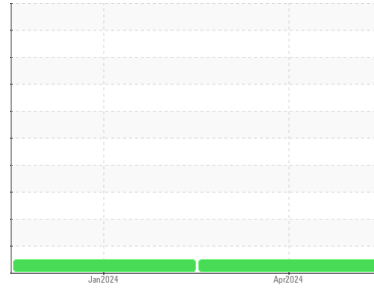




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**FREIGHTLINER 1219**  
 Component  
**Diesel Engine**  
 Fluid  
 **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0909292</b>	WC0878776	---
Sample Date	Client Info			<b>26 Apr 2024</b>	19 Jan 2024	---
Machine Age	mls	Client Info		<b>0</b>	370265	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	<b>16</b>	17	---
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	2	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	3	---
Lead	ppm	ASTM D5185m	>30	<b>2</b>	2	---
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>0</b>	3	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>57</b>	58	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	450	<b>955</b>	907	---
Calcium	ppm	ASTM D5185m	3000	<b>1079</b>	1036	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1046</b>	1023	---
Zinc	ppm	ASTM D5185m	1350	<b>1233</b>	1198	---
Sulfur	ppm	ASTM D5185m	4250	<b>3510</b>	2861	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	7	---
Sodium	ppm	ASTM D5185m	>158	<b>2</b>	1	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---

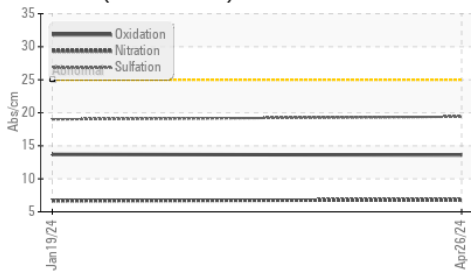
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	6.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	19.0	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.6</b>	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.5</b>	8.3	---

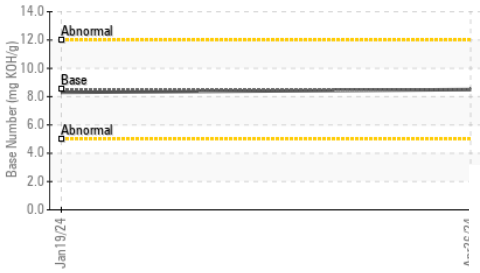


# OIL ANALYSIS REPORT

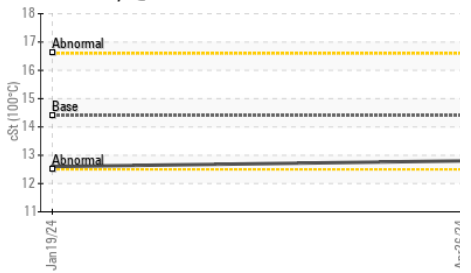
FT-IR (Direct Trend)



Base Number



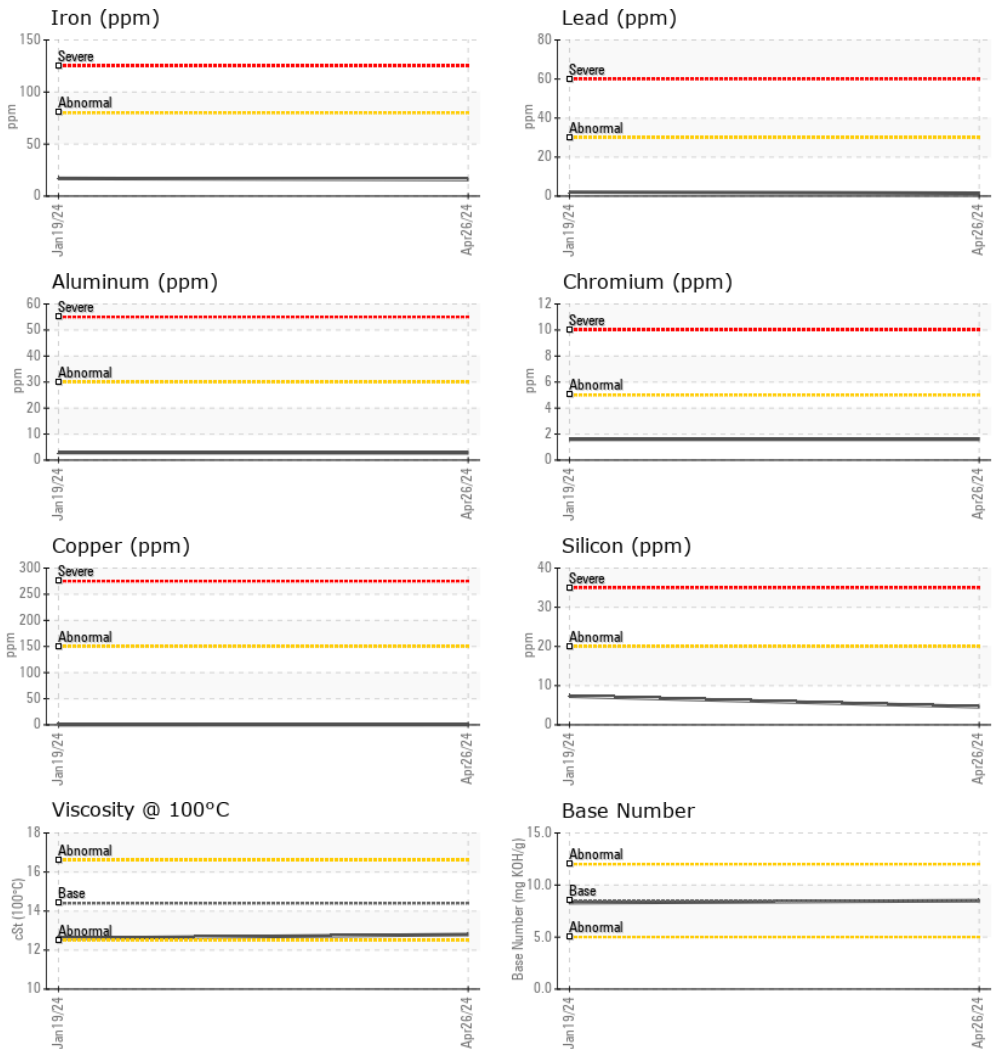
Viscosity @ 100°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	12.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909292  
**Lab Number** : 06197253  
**Unique Number** : 11059376  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: